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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,519	06/17/2005	Frederic Berier	0501-1137	2864
466 7590 07/01/2009 YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314			EXAMINER LAMPRECHT, JOEL	
			ART UNIT 3737	PAPER NUMBER
			MAIL DATE 07/01/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/539,519

Applicant(s)

BERIER ET AL.

Examiner

JOEL M. LAMPRECHT

Art Unit

3737

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seibel (US 6,975,898 B2) in view of Barbato et al (US 2003/0130562 A1). Seibel discloses a miniature confocal optical head for a confocal imaging system (Col 6 Line 65- Col 7 Line 50) with a point source to produce a beam, optical means for causing the beam to converge into an excitation point perpendicular to the optical axis, means for scanning to describe a field of view in two perpendicular directions (Col 10 Line 20 – Col 11 Line 45), rapid line scanning and column scanning, and the inclusion of MEMs capable of moving along a chosen displacement (Col 11 Line 45-Col 12 Line 65), the capability to both scan slowly and in real time (Col 17 Line 15-45), the inclusion of a divergent optical beam and optical means for transforming the beam into a parallel beam and focusing the beam onto the focus point (Col 18 Line 30-65, Col 11 Line 25-Col 13 Line 65), as well as mobile optical means capable of slow column scanning. Seibel also discloses having both optical means as mobile for the purpose of being moved in a direction perpendicular to the optical axis to define a scanning direction (Col 11 Line 25-45, Col 12 Line 45-Col 14 Line 40), the source is mobile, fixed to a piezoelectric means which can move the excitation beam, the use of a piezoelectric

positioner extending along the optical axis of the head (Col 13 Line 35 – Col 16 Line 10), means for modifying the depth of the subsurface observation plane (Col 17 Line 45 – Col 18 Line 10), including MEMs means capable of moving the optical focusing means to move along the optical axis of the beam (Col 12 Line 1-Col 15 Line 40), the terminal part of single-mode optical fiber capable of guiding the excitation signal from an external source (Col 15 Line 35-65), allowing for spatial filtering of the return signal to comply with the confocality of the head (Col 19 Line 60-Col 20 Line 52, Col 15 Line 5-60), the source being of a VCSEL type having a numerical aperture and cavity outlet compatible with a confocal system (Col 12 Line 65- Col 14 Line 15 (How fiber-based system is setup) along with Col 18 Line 50 – Col 19 Line 60), a tight window at the outlet to come into contact with the specimen for index matching (Col 25 Line 15-65, Col 15 Line 45- Col 16 Line 10), that window having refractive power function on the focused beam, and finally processing means for processing the emitted signal and reconstructing a confocal image of an imaged field (Col 24 Line 40- Col 25 Line 15).

Seibel does not fully disclose a true Euclidian translation along a chosen displacement, as the design is capable of rotational (2-axis) motion, rather than just along one axis. Attention is then paid to the secondary reference by Barbato et al which distinctly describes the use of MEMs components with optical means for translation along both the x and y axes independently (both parallel and perpendicular to the optical path) (0036-0037). It would have been obvious to one of ordinary skill in the art to have included such an adjustable optical means of Barbato et al in the device of

Seibel to have allowed for a focused modification of the optical head in one direction while preventing further distortion of the optical elements.

Response to Arguments

Applicant's arguments filed 10/31/08 have been fully considered but they are not persuasive. Regarding the argument that Seibel only discloses a confocal system in 6c, Examiner respectfully disagrees. As far as confocal systems, Seibel discloses multi-lens systems sharing focus in multiple embodiments (Figs 1-4, 6, 12) and also discloses actuation of both the optical bundle/fiber and the lens (Col 11 Line 45-Col 12 Line 30), though as noted a translation along a chosen displacement is not explicitly disclosed. With regard to the arguments against Barbato, namely that a translation is not disclosed, and the actuators are not capable of moving an optical device which is capable of causing an excitation beam to converge into an excitation point, Examiner respectfully disagrees and notes that it is possible that through the inclusion of element numbers, Applicant is reading limitations from the specification into the language of the claims as currently worded. Should applicant wish to limit the optical devices to only mirrors or lenses, such a limitation should be amended into the claims, rather than simply referred to with an element number, as the wording of the claims does not provide explicit limitation as to the nature of what an optical device can or should be.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joel M. Lamprecht whose telephone number is (571) 272-3250. The examiner can normally be reached on Monday-Friday 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571)272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joel M Lamprecht/
Examiner, Art Unit 3737

/BRIAN CASLER/
Supervisory Patent Examiner, Art Unit 3737